Floor Buffer Guidelines

Floor buffers can expose employees to noise, hazardous materials, and hazards related to combustible gas storage. To assess these hazards Environmental Health and Instructional Safety (EH&IS) conducted exposure monitoring during the operation of these machines. The following sections describe the potential hazards and precautions for buffing operations.

Asbestos

Filters obstructed by wax dust made asbestos detection impossible, but abrasive action, burnishing, and mechanical treatment of unsealed vinyl asbestos floor tile (VAT) can trigger an asbestos fiber release above acceptable levels. Routine maintenance of vinyl asbestos floor tiles (VAT) does not expose custodians to significant concentrations of airborne asbestos except when these tiles have been stripped of their protective finish and dry buffed. A floor finish coating of VAT floors, non-abrasive polishing pads, and speeds at or below 190 rotations per minute can help prevent the release of airborne asbestos fibers. Please use these precautions:

1. Strip, burnish, and buff wet and sealed tile floors only.
2. Strip floor tiles as infrequently as possible.
3. Custodial staff should receive training on the safe operation of the machines, pads, and floor care chemicals used at CSUF before stripping floors.
4. Use the low speed setting while stripping floors.
5. Select the least abrasive pad for stripping operations.
6. Do not over-strip, and stop stripping when the old coat is removed. Over-stripping can damage the floor and may cause the release of asbestos fibers.
7. Do not operate a floor buffer with an abrasive pad on un-waxed or unfinished floors.

Carbon Dioxide (CO2)

Exposure monitoring results of 500 ppm for CO2 fell below the Cal/OSHA PEL of 5000 ppm while employees were operating buffers. No specific precautions are recommended.

Carbon Monoxide (CO)

Exposure monitoring results indicate that carbon monoxide did not exceed the Cal/OSHA Permissible Exposure Limit (PEL) of 25 ppm while employees were operating buffers. No specific precautions are recommended.

Dust
Exposure monitoring results of 0.87 mg per cubic meter of air fell below the Cal/OSHA PEL of 10 mg per cubic meter of air. No specific precautions are recommended.

**Noise**

The noise level produced by the propane buffer is considered high. Hearing protection such as ear plugs and ear muffs are recommended during usage of the machine. Personal noise dosimeter results indicate that employees are not exposed to noise over the Cal/OSHA action level requiring enrollment in the Hearing Conservation Program and use of hearing protection.

**Propane Re-filling**

Only trained and qualified personnel may refill propane containers.

**Propane Storage**

Storage of propane should occur in identified well ventilated storage containers outside of the buildings. The Office of the State Fire Marshal regulates storage of the propane and prohibits its storage in unapproved locations within the buildings such as custodial “hopper rooms” or break areas. The applicable California Regulations include Title 19 Sections 3.14, 3.15, and 3.19.

**Respiratory Protection**

Floor buffer operation does not require the use of a respirator due to low exposures to carbon monoxide, dust, and carbon dioxide. Also, adherence to the asbestos precautions should reduce the need for employees to wear respirators. Floor buffer operators may voluntarily choose to wear a respirator and should contact EH&IS for approval before doing so.

**Scheduling**

Because of the noise and odor produced by propane buffers, propane buffing should normally cease prior to 7:00 a.m. or normal business hours. Notify Central Plant (ext. 2432) before operating buffers to set the building ventilation to 100% outside air during their operation. Please do not forget to provide Central Plant the location and time needed for ventilation.

Operation of propane buffers is a sensitive topic and a point of numerous complaints from the campus community. Please be empathetic to these feelings and comply with the above procedures. If you have any related questions, call EH&IS at ext. 7233.

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